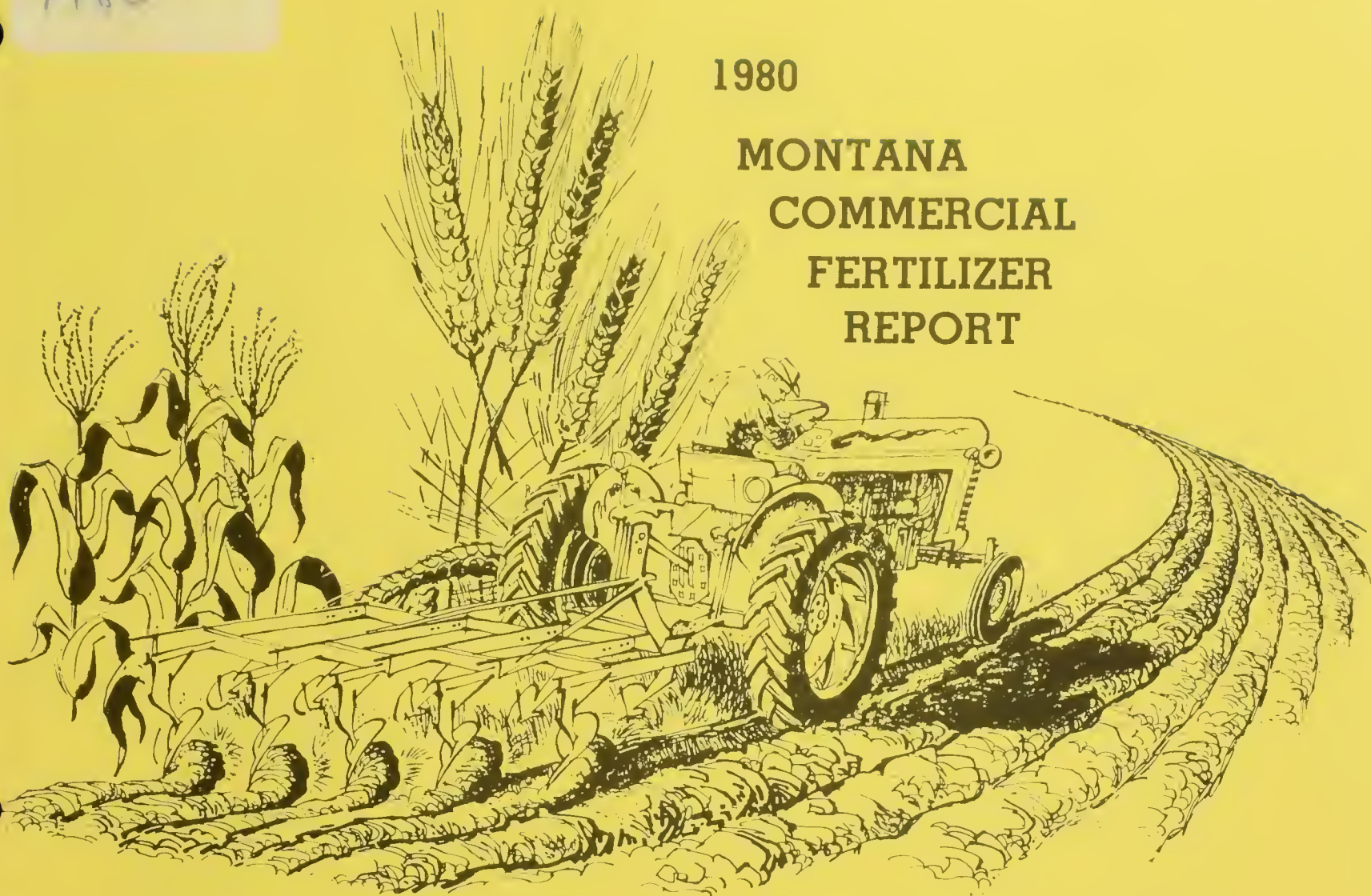


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MONTANA
COMMERCIAL
FERTILIZER
REPORT



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MONTANA DEPARTMENT OF AGRICULTURE
Plant Industry Division

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Steven Schmidt, Agricultural Inspector

This report consists of the following three sections:

N-P-K Analyses.....Pages 1-18

Micronutrient Analyses....Pages 19-21

Statistical Data.....Pages 22-25

COMMERCIAL FERTILIZER REPORT

ISSUED BY

THE DEPARTMENT OF AGRICULTURE, STATE OF MONTANA, HELENA, MONTANA

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	TOTAL NITROGEN		AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)	
			CLAIMED	FOUND	CLAIMED	FOUND	CLAIMED	FOUND
Alaska Fish Fertilizer 865 Lind Avenue South West Renton, Washington 98055								
Alaska Fish Fertilizer-----	Billings	5255	5	5.1	1	1.8	1	1.6
Beker Industries 124 West Putnam Avenue Greenwich, Connecticut 06830								
18-46-0-----	Stevensville	5008	18	17.3	46	46.1		
-----	Broadview	5095	18	18.0	46	46.3		
-----	Harlowton	5106	11	11.2	53	53.2		
-----	Carter	5216	11	10.8	53	53.3		
-----	Lambert	5219	18	17.7	46	46.4		
-----	Rudyard	5310	18	18	46	46.9		
-----	Chinook	5318	18	18.1	46	46.5		
-----	Rapelje	5346	18	18.4	46	46.2		
-----	Geraldine	5365	11	10.8	53	53.9		
-----	Fort Benton	5377	18	17.7	46	46.0		
-----	Fort Benton	5379	11	11.1	53	53.6		
-----	Great Falls	5391	18	18.0	46	46.4		
-----	Great Falls	5392	18	18.0	46	46.2		
-----	Great Falls	5397	11	11.1	53	53.0		
-----	Great Falls	5398	18	18.0	46	46.2		
-----	Cut Bank	5457	11	10.9	53	53.5		
-----	Cut Bank	5459	11	11.0	53	53.0		
-----	Columbus	5474	18	17.8	46	46.3		
Best Product Div. of Zoecon Corporation 975 California Avenue Pablo Alto, California 94304								
Super Iron -----	Great Falls	5276	6	3.9	6	4.5	2	1.6
Bumper Crop Tree Food-----	Great Falls	5277	13	14.9	6	7.0	8	9.5

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
C & F Industries Box 43089 St. Paul, Minnesota 55165								
21-0-0-----	Stevensville	5009	21	21.3				
-----	Kalispell	5039	34	34.4				
-----	Kalispell	5041	16	16.3	20	20.1		
-----	Kalispell	5044					60	59.9
-----	Worden	5049	41	45.6				
-----	Worden	5050	34	34.0				
-----	Worden	5051	18	17.8	46	46.1		
-----	Worden	5054			44	44.3		
-----	Hardin	5063	46	46.3				
-----	Hardin	5064			44	44.1		
-----	Hardin	5065					60	59.5
-----	Hardin	5066	18	18.0	46	46.3		
-----	Broadview	5096	11	10.8	51	51.1		
-----	Broadview	5097	46	46.6				
-----	Broadview	5100			44	46.5		
-----	Lewistown	5120	46	46.5				
-----	Lewistown	5121	0	.5	44	43.6		
-----	Lewistown	5122	11	11.5	51	51.4		
-----	Lewistown	5124	46	46.0				
-----	Denton	5131			44	44.2		
-----	Denton	5132					60	60.4
-----	Denton	5133	11	10.7	51	50.2		
-----	Denton	5134	18	18.0	46	46.1		
-----	Denton	5135	46	46.3				
-----	Rudyard	5311	46	46.4				
-----	Rudyard	5313	11	10.9	51	53.2		
-----	Harlem	5339	46	46.7				
-----	Belgrade	5416			44	44.9		
-----	Belgrade	5417	21	21.1				
-----	Belgrade	5420	18	18.3	46	46.5		
-----	Belgrade	5422	46	46.7				
Cargill Fort Benton 59422								
-----	Fort Benton	5139	11	14.1	51	<u>44.5</u>		
-----	Fort Benton	5140	34	34.2				
Cargill Box 9300 Minneapolis, Minnesota 55440								
-----	Havre	5326	18	18	46	46.2		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
The Charles H. Lilly Company 7737 North East Killingsworth Portland, Oregon 97218								
Super Rich Organic P.F.-----Hamilton		5243	5	7.9	3	5.1	1	1.7
Rhododendron & Evergreen Food---Hamitlon		5244	6	6.0	10	10.7	8	12.8
Systemic Rose, Shrub & Flower---Hamitlon Care		5245	9	9.4	9	9.9	9	9.6
Liquid Super Rich Plant Food----Hamilton		5246	4	4.9	8	6.6	8	8.2
Chevron Chemical Company 940 Hensley Street Richmond, California 94804								
Ortho Ammonium Nitrate-----Missoula		4961	34	34				
Ortho Unipel 16-16-16-----Missoula		4962	16	15.2	16	16.0	16	15.1
27-12-0-----Bozeman		4981	27	26.7	12	12.5		
16-20-0-----Hamilton		4998	16	16.2	20	20.3		
27-12-0-----Hamilton		4999	27	26.9	12	12.3		
34-0-0-----Hamilton		5000	34	34.2				
34-0-0-----Hamilton		5003	34	34.5				
27-12-0-----Stevensville		5004	27	26.3	12	12.3		
16-16-16-----Stevensville		5005	16	15.4	16	15.3	16	16.0
34-0-0-----Stevensville		5006	34	34.3				
27-12-0-----Dillon		5012	27	26.7	12	12.5		
30-0-0-----Dillon		5014	30	29.8				
34-0-0-----Dillon		5016	34	34.5				
34-0-0-----Dillon		5022	34	34.4				
Ortho Unipel 16-16-16-----Billings		5026	16	16.0	16	15.5	16	15.9
34-0-0-----Kalispell		5029	34	34.1				
34-0-0-----Kalispell		5032	34	34.1				
16-16-16-----Kalispell		5034	16	16.3	16	16.2	16	15.1
30-0-0-----Kalispell		5035	30	29.9				
16-16-16-----Deer Lodge		5072	16	15.7	16	16.0	16	15.9
27-12-0-----Deer Lodge		5073	27	26.7	12	12.0		
34-0-0-----Deer Lodge		5074	34	34.5				
-----Great Falls		5081	34	34.4				
-----Ronan		5173	16	16.2	16	15.0	16	15.9
-----Ronan		5174	34	34.0				
-----Ronan		5178	27	26.9	12	12.0		
Unipel-----Ronan		5179	30	29.6				
Rose Food-----Dillon		5247	8	8.4	12	12.0	4	3.8
Fern and Ivy Food-----Dillon		5248	10	10.7	8	8.6	7	7.3
Gro Liquid Plant Food-----Dillon		5249	12	12.1	6	6.9	6	6.0
Up-Start Root Stimulator-----Dillon		5250	5	4.9	15	15.9	5	5.0
Fish Emulsion Fertilizer-----Butte		5251	5	5.1	1	2.1	1	1.3
Blood Meal-----Helena		5252	12	13.5				

			TOTAL NITROGEN		AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)	
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Chevron Chemical Company (continued)								
Evergreen and Tree Food-----	Helena	5253	12	12.7	6	7.0	6	7.3
Rose Food-----	Sidney	5269	8	8.0	12	12.1	4	5.6
3 Way Rose & Flower Care-----	Sidney	5270	8	8.9	12	12.1	4	4.0
Blood Meal-----	Sidney	5272	12	13.0				
Bone Meal-----	Sidney	5273			12	14.8		
Evergreen and Tree Food-----	Sidney	5274	12	11.8	6	6.7	6	6.3
Tomato Food-----	Sidney	5275	5	5.1	10	11.3	10	11.7
-----	Sheridan	5341	34	34.6				
-----	Sheridan	5342	27	26.9	12	12.2		
-----	Sheridan	5343	16	16.1	20	20.6		
-----	Geraldine	5368	22	21.1	22	22.0		
-----	Highwood	5399	34	34.0				
-----	Dillon	5401	34	34.2				
-----	Dillon	5402	27	26.7	12	12.0		
-----	Dillon	5403	30	30.2				
-----	Dillon	5410	34	33.9				
-----	Shelby	5470	34	34.2				
Ciba-Geigy Corporation Box 11422 Greensboro, North Carolina 27409								
Earth Care Professional Plant---	Billings	5263	8	11.1	8	11.6	8	9.3
Iron Tonic Granules								
Coast Trading Company Box 7696 Missoula, Montana 59801								
16-20-0-14-----	Missoula	4960	16	16.5	20	20.7		
34-17-0-----	Missoula	4963	34	35.0	17	17.5		
11-55-0-----	Missoula	4964	11	11.2	55	55.4		
46-0-0-----	Missoula	4965	46	46.1				
Cominco American, Incorporated West 818 Riverside Avenue Spokane, Washington 99220								
Elephant 18-46-0-----	Glasgow	4966	18	18.3	46	46.4		
Elephant 18-46-0-----	Wolf Point	4969	18	17.9	46	46.6		
11-55-0-----	Hamilton	5001	11	11.6	55	55.2		
16-20-0-----	Hamilton	5002	16	16.5	20	20.4		
11-55-0-----	Kalispell	5031	11	11.5	55	55.2		
-----	Kalispell	5036					60	60.3
-----	Kalispell	5037	11	11.2	55	55.3		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Cominco American, Inc. (continued)								
18-46-0-----	Hardin	5056	18	18.6	46	47.1		
18-46-0-----	Laurel	5069	18	18.5	46	46.5		
46-0-0-----	Laurel	5070	46	46.1				
28-0-0-----	Great Falls	5094	28	28.7				
-----	Lewistown	5119	11	11.4	55	55.1		
-----	Lewistown	5127					60	60.0
-----	Lewistown	5128	11	11.2	55	55.2		
-----	Lewistown	5129	18	18.3	46	46.1		
-----	Lewistown	5130	46	46.3				
-----	Fort Benton	5143	46	46.1				
-----	Fort Benton	5152	16	16.4	20	20.3		
-----	Fort Benton	5153	11	11.3	55	55.3		
-----	Fort Benton	5154	46	46.1				
-----	Choteau	5159	11	11.4	55	55.3		
-----	Choteau	5160					60	60.1
-----	Choteau	5161	16	16.1	20	21.5		
-----	Choteau	5162	34	34.0				
-----	Ronan	5172	11	11.1	55	55.1		
-----	Ronan	5175					60	60.5
-----	Ronan	5176	21	20.9				
-----	Belgrade	5189	16	16.4	20	20.9		
-----	Belgrade	5190	46	45.9				
-----	Belgrade	5191	11	11.4	55	55.3		
-----	Belgrade	5192					60	60.2
-----	Belgrade	5193	18	18.4	46	46.1		
Elephant 0-0-60-----	Fairview	5209					60	60.4
Elephant 34-0-0-----	Fairview	5210	34	34.2				
Elephant 18-46-0-----	Fairview	5211	18	18.3	46	46.4		
Elephant 11-55-0-----	Fairview	5212	11	11.2	55	55.7		
Elephant-----	Stanford	5283	11	11.5	55	55.0		
Elephant-----	Stanford	5284	18	18.8	46	46.1		
Elephant-----	Stanford	5285					60	61.3
Elephant-----	Stanford	5286	46	46.8				
Elephant 0-0-60-----	Bridger	5301					60	62.7
-----	Hingham	5332	28	30.2				
Elephant-----	Geraldine	5367	46	46.1				
Elephant-----	Fort Benton	5381	46	46.3				
-----	Belgrade	5412	11	11.5	55	55.4		
-----	Belgrade	5413	46	46.3				
Elephant 11-55-0-----	Fairview	5433	11	11.4	55	55.1		
Elephant 11-55-0-----	Sidney	5434	11	11.4	55	55.2		
Elephant 11-55-0-----	Sidney	5435	11	11.5	55	54.7		
-----	Power	5450	21	21.0				
-----	Shelby	5466	11	11.4	55	55.4		
-----	Shelby	5467					60	60.2
-----	Shelby	5468	18	18.4	46	46.3		
-----	Shelby	5469	16	16.6	20	20.3		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Cominco American, Inc. (continued)								
-----Laurel		5476	11	11.5	55	55.0		
-----Laurel		5477	46	46.3				
-----Laurel		5478	18	18.2	46	46.0		
-----Laurel		5479	16	16.6	20	20.1		
Con Agra, Incorporated Belgrade, Montana 59714								
-----Deer Lodge		5075	16	16.6	20	22.7		
-----Deer Lodge		5076	29	27.6	14	21.3		
Blend 4-2 & 4-3-----Livingston		4973	30	30.6	10	10.0		
Blend-----Livingston		4975	25	25.8	25	25.0		
-----Belgrade		5287	29	29.5	14	13.2		
-----Belgrade		5288					60	60.9
-----Helena		5352	25	25.0	25	26.8		
-----Townsend		5355	29	27.9	14	15.3		
Blend-----Belgrade		5415	27.2	25.6			12	14.7
Con Agra, Incorporated Box 2211 Cut Bank, Montana 59427								
-----Cut Bank		5454	21	21.2				
-----Cut Bank		5446					60	61.8
Con Agra, Incorporated Box 218 Fairfield, Montana 59436								
-----Fairfield		5436	18	28.4	46	47.1		
-----Fairfield		5437					60	61.5
-----Fairfield		5438			45	44.3		
-----Fairfield		5439	11	11.4	51	51.1		
Con Agra, Incorporated Box 2548 Great Falls, Montana 59403								
-----Great Falls		5085	21	21.2				
-----Great Falls		5087					60	59.2
-----Great Falls		5091					60	60.3
-----Great Falls		5092	16	16.4	20	20.1		
-----Great Falls		5093	46	46.4				
-----Choteau		5167	34	34.5				
-----Choteau		5168	18	18.0	46	46.1		
-----Choteau		5169					60	60.0
-----Choteau		5170	11	11.3	51	51.2		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Con Agra, Inc. (continued) Great Falls, MT								
-----Great Falls		5385					60	60.3
-----Fairfield		5440	34	33.4				
-----White Sulphur Springs		5480	16	15.9	43	43.0		
-----White Sulphur Springs		5481	34	34.0				
Con Agra, Incorporated Box 571 Havre, Montana 59401								
-----Havre		5237					60	58.6
-----Havre		5239	21	21.0				
-----Big Sandy		5337	11	11.7	51	51.4		
Con Agra, Incorporated 611 First Avenue South Lewistown, Montana 59457								
-----Lewistown		5126	21	21.1				
Con Agra Montana Elevator Company Box 96 Ryegate, Montana 59074								
-----Ryegate		5104					60	60.8
Estech General Chemicals Company 4060 East 26th Avenue Los Angeles, California 90023								
-----Helena		5267	5	5.4	8	<u>5.1</u>	10	9.8
-----Helena		5268	6	6.0	9	<u>7.8</u>	5	10.5
Equity Supply 6th Avenue West and Center Street Kalispell, Montana 59901								
-----Kalispell		5038	21	21.2				
Exxon Chemical Company Box 3272 Houston, Texas 77001								
Exxon 18-46-0-----Wolf Point		4970	18	18.0	46	46.0		
Exxon 11-48-0-----Wolf Point		4971	11	11.3	48	48.2		
Exxon 46-0-0-----Wolf Point		4972	46	46.2				
11-51-0-----Livingston		4974	11	11.7	51	51.2		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Exxon Chemical Company (continued)								
34-0-0-----	Wilsall	4976	34	34.5				
34-0-0-----	Livingston	4978	34	34.3				
11-51-0-----	Bozeman	4979	11	11.6	51	52.4		
27-14-0-----	Bozeman	4980	27	28.0	14	14.3		
18-46-0-----	Bozeman	4982	18	17.8	46	46.4		
34-0-0-----	Billings	4984	34	34.3				
Engro 16-20-0-----	Billings	5024	16	16.1	20	22.4		
Engro 34-0-0-----	Billings	5025	34	34.3				
Engro 18-46-0-----	Billings	5027	18	18.0	46	46.6		
34-0-0-----	Hardin	5057	34	34.2				
18-46-0-----	Hardin	5059	18	18.3	46	46.9		
34-0-0-----	Hardin	5060	34	34.4				
18-46-0-----	Great Falls	5084	18	18.1	46	46.1		
11-51-0-----	Great Falls	5086						
34-0-0-----	Great Falls	5088	34	34.3				
18-46-0-----	Great Falls	5089	18	18.2	46	46.4		
11-51-0-----	Great Falls	5090	11	11.2	51	51.7		
-----	Ryegate	5101	18	18.1	46	46.2		
-----	Ryegate	5102	34	34.0				
-----	Ryegate	5103	11	11.5	51	51.1		
-----	Moore	5112	18	17.7	46	46.0		
-----	Moore	5113	11	11.0	51	51.0		
Engro-----	Moore	5114	11	11.6	51	51.3		
Engro-----	Moore	5115	16	16.3	20	20.4		
-----	Moore	5107	11	12.5	51	48.2		
-----	Moore	5108	18	18.1	46	46.1		
-----	Moore	5109	34	34.0				
-----	Lewistown	5125	18	17.9	46	46.2		
-----	Three Forks	5188	18	17.9	46	46.2		
Engro 27-14-0-----	Billings	5218	27	27.4	14	14.1		
-----	Havre	5238	11	11.5	51	51.9		
-----	Havre	5240	18	18.0	46	46.4		
-----	Havre	5241	11	11.5	48	48.3		
-----	Belgrade	5289	16	16.4	20	20.4		
-----	Belgrade	5290	18	18.2	46	46.5		
-----	Belgrade	5291	11	11.7	51	51.6		
-----	Belgrade	5292	34	34.4				
-----	Great Falls	5386	11	11.9	51	51.6		
-----	Great Falls	5387	34	34.3				
-----	Great Falls	5388	18	18.0	46	46.1		
-----	Great Falls	5390	34	34.1				
Engro 11-51-0-----	Miles City	5430	11	11.8	51	52.9		
Engro 18-46-0-----	Miles City	5431	18	18.1	46	46.2		
-----	Helena	5353	16	16.6	20	21.7		
-----	Helena	5354			45	45.9		
-----	Townsend	5356	34	34.0				
-----	Townsend	5357	18	18.2	46	46.0		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O) .		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Exxon Chemical Company (continued)								
-----Townsend		5358	11	11.6	51	52.3		
-----Cut Bank		5451	16	16.4	20	21.4		
-----Cut Bank		5452	18	18	46	46.5		
-----Cut Bank		5453	46	46.1				
-----Cut Bank		5455	11	11.6	48	48.3		
Farmers Exchange of Stevensville Hamilton, Montana 59840								
34-0-0-----	Stevensville	5007	34	34.5				
16-20-0-----	Stevensville	5010	16	16.2	20	20.2		
Farmers Union 1667 North Snelling St. Paul, Minnesota								
0-0-60-----	Dillon	5081					60	60.2
Farmers Union Oil Company Fort Benton, Montana 59442								
-----Fort Benton		5147	11	11.4	51	51.4		
-----Fort Benton		5148	18	17.0	46	46.6		
-----Fort Benton		5149					60	60.0
-----Fort Benton		5150	46.0	46.5				
Farmers Union Oil Company Box 2483 Great Falls, Montana 59403								
-----Great Falls		5078	11	11.7	51	51.6		
-----Great Falls		5079					62.4	60.9
-----Great Falls		5080	16	16.2	20	19.6		
-----Great Falls		5082	18	18.1	46	46.2		
-----Great Falls		5083	21	21.4				
Farmers Union Moore, Montana 59464								
-----Moore		5110					60	60.5
-----Moore		5111	46	46.3				
Farmers Union GTA Broadview, Montana 59015								
-----Broadview		5098					62	61.3
-----Broadview		5099	34	34.4				

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	TOTAL NITROGEN		AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)	
			Claimed	Found	Claimed	Found	Claimed	Found
Farmers Union GTA Box 158 Chester, Montana 59222								
-----	Chester	5463	46	46.6				
-----	Chester	5464	18	<u>17.1</u>	46	46.7		
Farmers Union GTA Box 205 Rudyard, Montana 59540								
-----	Rudyard	16	16.1	20	20.3			
Farmers Union GTA Box 176 Stanford, Montana 59479								
-----	Stanford	5281	34	34.3				
-----	Stanford	5282	18	18.4	46	46.5		
Farmers Union Central Exchange Box 43089 St Paul, Minnesota 55164								
0-0-60-----	Dillon	5011					60	59.0
-----	Kalispell	5040	21	21.0				
18-46-0-----	Kalispell	5043	18	18.1	46	46.4		
-----	Kalispell	5045					50	<u>45.1</u>
-----	Belgrade	5203			44	44.1		
-----	Belgrade	5204	46	46.6				
Cenex 0-0-60-----	Savage	5205					60	60.4
Cenex 34-0-0-----	Savage	5206	34	34.3				
Cenex 18-46-0-----	Savage	5207	18	17.4	46	46.1		
Cenex 11-51-0-----	Savage	5208	11	11.2	51	51.3		
Cenex 0-44-0-----	Lambert	5220			44	44.4		
Cenex 18-46-0-----	Lambert	5221	18	17.9	46	46.0		
Cenex 11-51-0-----	St. Paul, MN	5222	11	10.8	51	51.3		
Cenex 11-51-0-----	Richey	5223	11	10.9	51	51.0		
Cenex 18-46-0-----	Richey	5224	18	17.9	46	46.4		
Cenex 0-0-60-----	Circle	5226					60	59.9
Cenex 0-44-0-----	Circle	5227			44	44.3		
Cenex 46-0-0-----	Circle	5228	46	45.6				
Cenex 11-51-0-----	Circle	5229	11	10.5	51	51.0		
Cenex 18-46-0-----	Circle	5230	18	17.5	46	46.5		
Cenex 18-46-0-----	Fairview	5232	18	18.0	46	46.2		
34-0-0-----	Edgar	5302	34	34.0				
21-0-0-----	Edgar	5303	21	20.9				
11-51-0-----	Edgar	5304	11	11.1	51	51.8		
0-0-60-----	Edgar	5305					60	60.4

			TOTAL NITROGEN		AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT		PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Farmers Union Central Exchange (continued)									
-----Edgar			5306	18	18.1	46	46.2		
-----Rudyard			5312					60	61.0
-----Rudyard			5315	21	21.2				
-----Chinook			5316			45	<u>44.0</u>		
-----Chinook			5317	11	11.2	51	<u>51.2</u>		
-----Chinook			5319					60	62.3
-----Chinook			5320	46	46.4				
-----Chinook			5321	16	16.2	20	20.5		
-----Havre			5322	46	46.7				
-----Havre			5323					60	61.0
-----Havre			5324	18	18.2	46	46.1		
-----Havre			5325	11	11.3	51	52.6		
-----Havre			5327	46	46.5				
-----Havre			5333	18	18.2	46	46.3		
-----Havre			5334					60	60.8
-----Havre			5335	46	46.8				
-----Broadview			5348	11	10.9	51	<u>49.5</u>		
-----Broadview			5349	11	11.1	51	<u>51.6</u>		
-----Broadview			5350	46	46.9				
-----Broadview			5351					60	62.5
-----Townsend			5359	18	17.7	46	46.1		
-----Townsend			5360					60	<u>57.6</u>
-----Townsend			5361	46	46.5				
Cenex-----	Geraldine		5370					60	61.4
Cenex-----	Geraldine		5371	34	33.8				
Cenex-----	Geraldine		5372	34	34.3				
Cenex-----	Geraldine		5373	34	34.5				
Cenex-----	Geraldine		5374	18	18.3	46	47.2		
Cenex-----	Geraldine		5375	18	18.0	46	46.5		
Cenex-----	Geraldine		5376	21	21.3				
Cenex-----	Fort Benton		5378					60	62.5
Cenex-----	Fort Benton		5380	46	47.0				
-----Dillon			5404					60	60.6
Cenex 0-0-60-----	Hysham		5425					60	60.4
Cenex 18-46-0-----	Hysham		5426	18	17.9	46	46.1		
Cenex 0-0-60-----	Kinsey		5427					60	62.1
Cenex 0-44-0-----	Kinsey		5428			44	44.2		
Cenex 18-46-0-----	Kinsey		5429	18	17.8	46	46.2		
-----Fairfield			5441	18	18.0	46	46.0		
-----Fairfield			5442					60	60.8
-----Fairfield			5443	11	11.1	51	50.3		
-----Fairfield			5444	34	34.2				
-----Fairfield			5445	21	21.1				
-----Fairfield			5447					60	60.5
-----Cut Bank			5458	18	18.0	46	46.2		
-----Cut Bank			5460	46	46.2				
-----Cut Bank			5461					60	60.2

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Farmers Union Central Exchange (continued)								
-----Three Forks		5194	16	16.0	20	20.4		
-----Three Forks		5195					60	60.5
-----Three Forks		5196	11	10.9	51	50.1		
-----Three Forks		5197	18	17.2	46	46.5		
-----Three Forks		5198	21	21.1				
-----Three Forks		5199	34	34.0				
-----Townsend		5200	18	17.9	46	46.4		
-----Townsend		5201	46	46.2				
-----Cut Bank		5464	21	21.0				
-----Chester		5465	11	11.1	51	51.6		
-----Columbus		5471					62	62.3
-----Columbus		5472	34	34.2				
-----Columbus		5473	11	10.9	51	51.6		
-----Columbus		5475			44	44.8		
Farmers Union Central Exchange Geraldine, Montana 59446								
-----Geraldine		5155	34	33.5				
-----Geraldine		5156	18	17.9	46	46.1		
-----Geraldine		5157	21	21.1				
-----Geraldine		5158					60	58.7
Farmers Union Central Exchange 1121 15th North Great Falls, Montana 59403								
-----Great Falls		5393	34	34.2				
-----Great Falls		5394					62.4	62.7
-----Great Falls		5395	34	34.2				
-----Great Falls		5396	34	33.9				
Farmers Union Central Exchange Fairfield, Montana 59436								
-----Fairfield		5163	21	21.0				
-----Fairfield		5164	34	34.1				
-----Fairfield		5165	18	17.8	46	46.0		
-----Fairfield		5166					60	60.4
Farmers Union Central Exchange 4th Avenue East North & RR Kalsipell, Montana 59901								
-----Kalsipell		5180	18	17.3	46	46.1		
-----Kalsipell		5181	16	16.2	20	20.0		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Farmers Union Central Exchange Ronan, Montana 59864								
-----Ronan		5182					60	60.6
-----Ronan		5184	21	20.9				
-----Ronan		5185	46	46.3				
Farmers Union Central Exchange Cenex Soil Service Center 1200 South 24 West Billings, Montana 59103								
18-46-0-----Billings		4990	18	18.1	46	46.3		
18-46-0-----Billings		4991	18	18.3	46	46.5		
46-0-0-----Billings		4992	46	46.6				
18-46-0-----Billings		4993	18	17.7	46	46.2		
18-46-0-----Billings		4994	18	17.7	46	46.0		
0-60-0-----Billings		4995					60	59.7
21-0-0-----Billings		4996	21	21.2				
11-51-0-----Billings		4997	11	11.2	51	51.3		
Gallatin Farmers Company Box 123 Belgrade, Montana 59714								
-----Belgrade		5418	16	16.2	20	20.6		
-----Belgrade		5419					60	60.4
-----Belgrade		5421	11	11.1	51	51.0		
General Mills Fort Benton, Montana 59442								
-----Fort Benton		5145					60	60.0
-----Fort Benton		5382					60	61.5
Great Plains Fertilizer Geraldine, Montana 59446								
-----Geraldine		5366					60	60.9
Hi Line Fertilizer Box 228 Hingham, Montana 59528								
-----Hardin		5058	16	16.5	20	19.6		
-----Hardin		5331	10	9.6	34	34.9		
-----Geraldine		5138	10	10.1	34	32.2		
-----Geraldine		5151	11	11.1	51	51.2		

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	TOTAL NITROGEN		AVAILABLE PHOSPHORIC ACID (P_2O_5)		SOLUBLE POTASH (K_2O)	
			Claimed	Found	Claimed	Found	Claimed	Found
Hyponex Company 3489 Sawmill Road Copley, Ohio 44321								
House Plant Food 5-10-5-----	Great Falls	5298	5	5.4	10	10.6	5	5.3
Irrigation Equipment Sales Box F Highway 28 Hot Springs, Montana 59845								
12-0-0-26 Sulfur-----	Hot Springs	5362	12	11.7				
J. R. Simplot Company Box 912 Pocatello, Idaho 83201								
Simplot 34-0-0-----	Glasgow	4968	34	34.4				
11-52-0-----	Wilsall	4977	11	11.0	52	52.3		
0-0-60-----	Billings	4983					60	59.6
34-0-0-----	Billings	4985	34	34.3				
12-45-0-----	Billings	4986	0	0.5	45	45.9		
16-20-0-----	Billings	4987	16	15.9	20	22.0		
18-46-0-----	Billings	4988	18	18.0	46	46.6		
0-44-0-----	Billings	4989			44	43.4		
0-45-0-----	Dillon	5013			45	46.9		
18-46-0-----	Dillon	5015	18	18.4	46	48.1		
11-52-0-----	Dillon	5017	11	11.5	52	50.4		
18-46-0-----	Dillon	5019	18	17.8	46	43.4		
16-20-0-----	Dillon	5020	16	15.9	20	21.2		
0-45-0-----	Dillon	5021			45	45.2		
21-0-0-----	Dillon	5023	21	21.2				
16-46-0-----	Kalispell	5030	18	17.9	46	46.4		
16-20-0-----	Kalispell	5033	16	14.7	20	26.7		
-----	Kalispell	5042			44	45.0		
-----	Hardin	5055	34	34.3				
-----	Hardin	5062			45	45.0		
-----	Billings	5068			53.5	53.6		
16-20-0-----		5071	16	16.0	20	21.8		
-----	Lewistown	5117	18	18.0	46	46.2		
-----	Fort Benton	5141	11	10.9	52	52.3		
-----	Fort Benton	5142			45	45.2		
-----	Fort Benton	5144			45	44.9		
-----	Fort Benton	5146	11	11.2	52	52.3		
-----	Fort Benton	5177	18	17.9	46	45.7		
-----	Townsend	5187	16	15.9	20	20.9		
11-52-0-----	Carter	5213	11	11.4	52	52.2		
34-0-0-----	Carter	5214	34	34.1				
34-0-0-----	Carter	5215	34	34.5				
-----	Kalispell	5236	16	16.1	20	20.3		
Simplot-----	Belgrade	5292			45	45.4		

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O) .		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
J.R. Simplot Company (continued)								
Simplot 18-46-0-----	Bridger	5299	18	18.3	46	46.0		
-----	Big Sandy	5338	18	18.3	46	46.0		
-----	Big Sandy	5336	34	34.7				
-----	Harlem	5340			44	45.3		
-----	Broadview	5347	18	18.2	46	46.6		
-----	Fort Benton	5383			45	45.1		
-----	Fort Benton	5384	11	11.2	52	52.5		
-----	Highwood	5400	11	11.4	52	52.1		
-----	Dillon	5405	11	11.4	52	52.4		
-----	Dillon	5406			45	45.0		
-----	Dillon	5407	18	18.4	46	46.6		
-----	Dillon	5408	16	16.1	20	20.7		
-----	Dillon	5409	21	21.4				
Simplot 34-0-0-----	Hysham	5423	34	34.5				
Simplot 18-46-0-----	Hysham	5424	18	18.2	46	46.5		
Leeming Division, Pfizer, Inc. 232 East 42 Street New York, New York 10017								
House in Bloom All-Purpose Plant-Food	Billings	5259	7	7.3	7	8.0	7	8.0
Leisure Group, Incorporated Black Magic 1035 Watsoncenter Road Carson, California 90745								
Liquid Fertilizer 10-5-5-----	Missoula	5296	10	10.5	5	5.2	5	5.3
Blossom Boosters 4-10-10-----	Missoula	5297	4	3.6	10	10.6	10	9.8
Magnolia Products 500 7th Avenue South Kirkland, Washington 98033								
Rose'N Flower Fertilizer-----	Great Falls	5279	8	8.1	10	10.3	9	10.9
Bulb Fertilzier-----	Great Falls	5280	4	5.4	10	10.7	10	10.1
MonKota Box 487 Fairview, Montana 59221								
-----	Fairview	5432	34	33.8				

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUBLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Northrup King 1500 Jackson Street Minneapolis, Minnesota 55413								
Bone Meal-----	Billings	5264	2	2.1	13	17.9		
Vegetable & Flower Food-----	Billings	5265	5	5.0	10	10.9		
Triple Tonic-----	Billings	5266	18	17.5	3.0	3.6	5	6.0
Northwest Fertilizer Box 228 Hingham, Montana 59528								
-----	Hingham	5328	18	18.2	46	45.7		
-----	Hingham	5329	13	14	39	39.4		
-----	Hingham	5330	11	11.4	53	53.5		
Nutritional Products, Incorporated 15280 Highway 3 South Rosemount, Minnesota 55068								
0-40-0-----	Circle	5231			40	40.2		
Occidental Chemical Company Box 198 Lathrope, California 95330								
-----	Geraldine	5369	16	16.1	20	21.1		
Peavey Company Box 199 Carter, Montana 59420								
-----	Carter	5217	11	11.3	55	55.0		
Peavey Company Box 779 Lewistown, Montana 59457								
-----	Harlowton	5105	16	16.0	20	30.3		
-----	Lewistown	5116					60	60.2
-----	Lewistown	5118	34	34.0				
Phillips Petroleum Company Box 13349 Spokane, Washington 99213								
32-0-0-----	Hot Springs	5363	32	32.3				

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	TOTAL NITROGEN		AVAILABLE PHOSPHORIC ACID (P_2O_5)		SOLUBLE POTASH (K_2O)	
			Claimed	Found	Claimed	Found	Claimed	Found
Plant Research Laboratories 2525 Dupont Drive Irvine, California 92713								
Oxygen Plus Indoor Plant Food----	Billings	5258	1	1.1	2	2.4	1	1.1
Plantabbs Corporation Box 397 Timonium, Maryland 21093								
Plantabbs House Plant Food-----	Billings	5260	11	12.2	15	16.2	20	21.5
Power Farmers Elevator Box 215 Power, Montana 59468								
-----Power		5446	34	34.0				
-----Power		5448	18	17.5	46	46.0		
-----Power		5449	11	10.8	51	51.5		
Ra-Pid-Gro Corporation 99 Ossian Street Dansville, New York 14437								
-----	Billings	5254	23	22.7	19	19.6	17	17.6
Sears and Roebuck Company Sears Tower 15th Floor Chicago, Illinois 60684								
Steamed Bone Meal-----	Great Falls	5278			12	18.6		
Selstad Soil Service Route 1 West, Box 43 Great Falls, Montana 59401								
SSS 10-34-0-----	Denton	5123	10	9.7	34	32.7		
SSS 10-34-0-----	Geraldine	5364	10	10.1	34	34.4		
Sherritt Gordon Fertilizer, Incorporated 3030 South West First Avenue Portland, Oregon 97201								
Sherritt 21-0-0-----	Belgrade	5293	21	21.0				
Sherritt 21-0-0-----	Great Falls	5389	21	21.2				

			TOTAL NITROGEN	AVAILABLE PHOSPHORIC ACID (P ₂ O ₅)		SOLUABLE POTASH (K ₂ O)		
NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	Claimed	Found	Claimed	Found	Claimed	Found
Stern's Nurseries, Incorporated 607 West Washington Street Geneva, New York 14456								
Miracle-Gro Plant Food-----	Billings	5256	15	15.4	30	31	15	16.5
Miracle-Soil Acid Fertilizer &--- Plant Food	Billings	5257	30	30.2	10	10.9	10	11.0
Strands Farm Supply Box 17 Circle, Montana 59215								
0-40-0-----	Billings	5047			40	42.6		
United States Steel 10 East South Temple #1250 Salt Lake City, Utah 84133								
34-0-0-----	Hardin	5061	34	34.2				
Western Seed and Supply Company Box 67 Ronan, Montana 59864								
16-20-0-----	Ronan	5171	16	16.2	20	20.4		
Wycon Chemical Company Boz 1287 Cheyenne, Wyoming 82001								
32-0-0-----	Billings	5067	32	31.7				
32-0-0-----	Belgrade	5295	32	31.6				
Ammonium Nitrate 34-0-0-----	Bridger	5300	34	34.3				

MICRONUTRIENT ANALYSES

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	MICRONUTRIENT	claimed	found
Bay Zinc Company Box 167 Moxee, Washington 98936	Worden	5053	Zinc	18	19.9
Best Product Division of Zoecon Corporation 975 California Avenue Pablo Alto, California 94304					
Super Iron-----	Great Falls	5276	Sulfur	22	24.9
			Iron	15	15.2
			Zinc	1.5	1.5
Bumper Crop Tree Food-----	Great Falls	5277	Sulfur	14	16.5
			Iron	1.5	<u>0.4</u>
C & F Industries Box 43089 St Paul, Minnesota 55165					
-----	Worden	5052	Sulfur	99.7	<u>92.0</u>
Ciba-Geigy Corporation Box 11422 Greensboro, North Carolina 27409					
Earth Care Professional Plant---	Billings	5261	Iron	10	10.1
Iron Tonic Soluble Powder					
Sequestrene Green Foliage-----	Billings	5262	Iron	10	10.8
Stimulant					
Earth Care Professional Plant---	Billings	5263	Sulfur	8	11.5
Plant Iron Tonic Granules					
Chevron Chemical Company 940 Hensley Street Richmond, California 94804					
Rose Food-----	Dillon	5247	Calcium	1.5	12.4
			Magnesium	1	6.3
Gro Liquid Plant Food-----	Dillon	5249	Iron	.5	0.55
			Zinc	.1	.1
3 Way Rose & Flower Care-----	Sidney	5270	Calcium	10	10.3
			Sulfur	9.5	10.7
Green Liquid Iron-----	Sidney	5271	Sulfur	3.64	4.0

MICRONUTRIENT ANALYSES

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	MICRONUTRIENT	claimed	found
Chevron Chemical Company (continued)					
Greenol Liquid Iron-----	Sidney	5271	Iron	6.13	6.2
Tomato Food-----	Sidney	5275	Calcium	4.5	9.0
			Sulfur	5.5	10.1
			Magnesium	2.0	0.92
30-0-0-----	Dillon	5403	Sulfur	6.5	5.9
Ortho Unipel 16-16-16-----	Missoula	4962	Sulfur	2.7	2.7
Coast Trading Company Box 7696 Missoula, Montana 59801					
CTC Fertilizers 16-20-0-14-----	Missoula	4960	Sulfur	14	14.0
Farmers Union Central Exchange Box 43089 St Paul, Minnesota 44164					
21-0-0-----	Rudyard	5315	Sulfur	24	23.9
Farmers Union Central Exchange Ronan, Montana 59864					
-----	Ronan	5183	Calcium	16.1	22.4
			Sulfur	12.8	16.6
Irrigation Equipment Sales Box F Highway 28 Hot Springs, Montana 59845					
12-0-0-26 Sulfur-----	Hot Springs	5362	Sulfur	26	25.0
J.R. Simplot Company Box 912 Pocatello, Idaho 83201					
11-52-0-----	Dillon	5405	Sulfur	2	2.0

MICRONUTRIENT ANALYSES

NAME AND ADDRESS OF MANUFACTURER OR DISTRIBUTOR BRAND AND NAME OF PRODUCT	PLACE OF COLLECTION	SAMPLE NUMBER	MICRONUTRIENT	claimed	found
Magnolia Products 500 7th Avenue South Kirkland, Washington 98033					
Rose'N Flower Fertilizer-----	Great Falls	5279	Sulfur	9	10.9
			Manganese	.05	.07
			Iron	.75	.23
			Zinc	.05	.09
Bulb Fertilizer-----	Great Falls	5280	Sulfur	7	6.5
			Iron	.60	.39
Montana Sulphur Chemical Company Box 31118 Billings, Montana 59107					
-----	Billings	5048	Sulfur	90.7	99.7
-----	Belgrade	5202	Sulfur	90	87.9
-----	Belgrade	5411	Sulfur	90	90.3
New Life Box 164 Grass Range, Montana 59032					
-----	Grass Range	5137	Calcium	23	18.7
			Sulfur	7	7.0
			Iron	.15	.62
Northrup King 1500 Jackson Street Minneapolis, Minnesota 55413					
Vegetable & Flower Food-----	Billings	5265	Sulfur	4	5.2
Triple Tonic-----	Billings	5266	Sulfur	4	4.0
			Iron	1	1.6
United States Soil Conditioning Company Box 1037 Salida, Colorado 81201					
-----	Billings	5046	Calcium	5.0	11.2
			Magnesium	.5	2.1
			Sulfur	5	7.6
			Iron	0.4	1.1

1980 FERTILIZER ANALYSIS BREAKDOWN

	<u>NO. ANALYZED</u>	<u>NO. DEFICIENT</u>	<u>% DEFICIENT</u>
Nitrogen	407	8	2.0
P ₂ O ₅	294	12	4.1
K ₂ O	96	2	2.1
Sulfur	23	2	8.7
Iron	11	3	27.3
Calcium	6	0	0
Zinc	4	0	0
Magnesium	3	1	0
Manganese	1	0	0

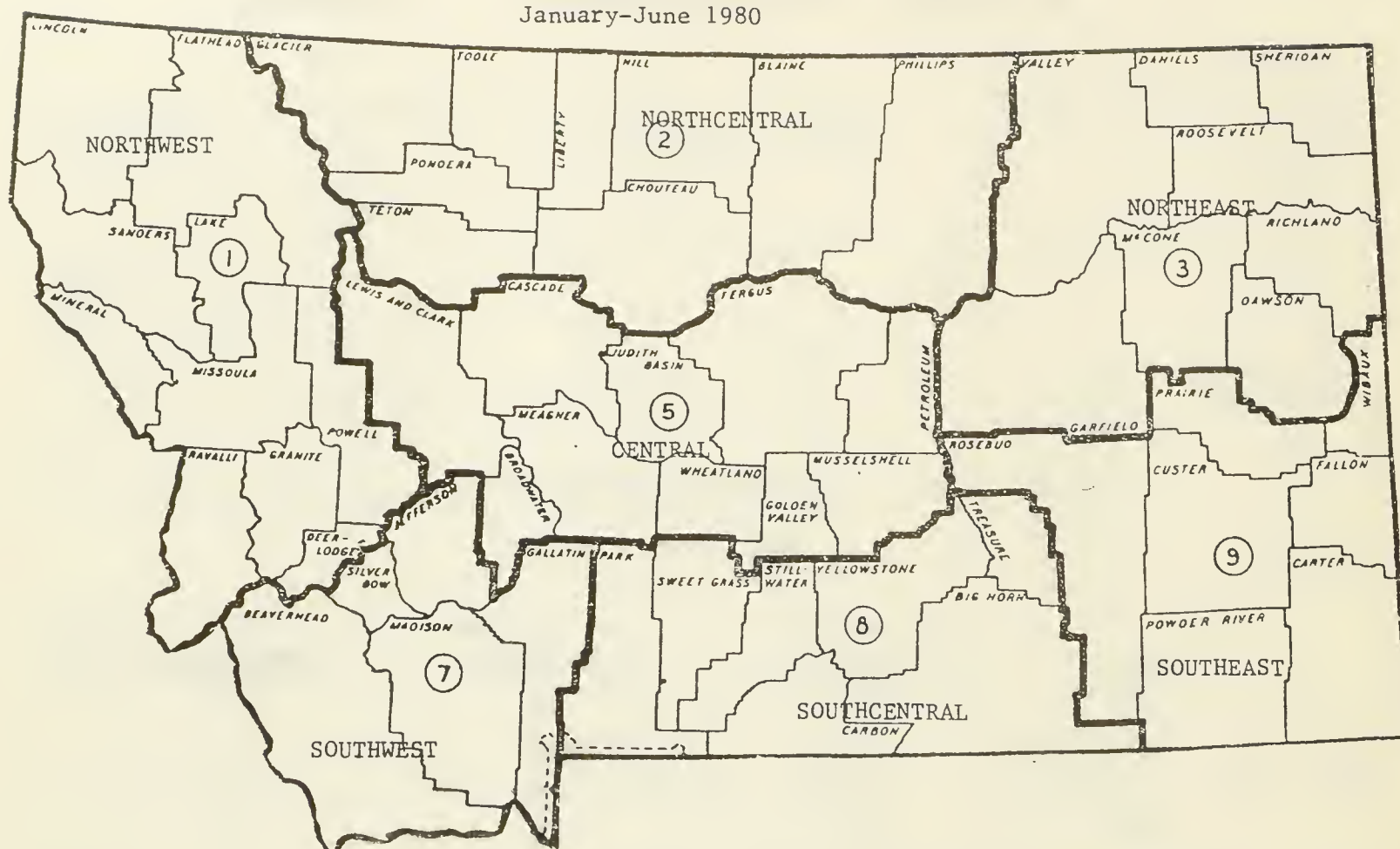
FERTILIZER SAMPLING

<u>YEAR</u>	<u>NO. SAMPLES TAKEN</u>	<u>NO. SAMPLES DEFICIENT</u>	<u>% DEFICIENT</u>
1976	514	49	9.5
1977	448	32	7.1
1978	533	30	5.6
1979	365	21	5.7
1980	506	27	5.3

FERTILIZER TONNAGE

<u>YEAR</u>	<u>TONNAGE</u>
1971	195,611
1972	226,939
1973	268,061
1974	219,197
1975	170,324
1976	283,925
1977	259,211
1978	301,487
1979	324,838
1980	295,958

January-June 1980

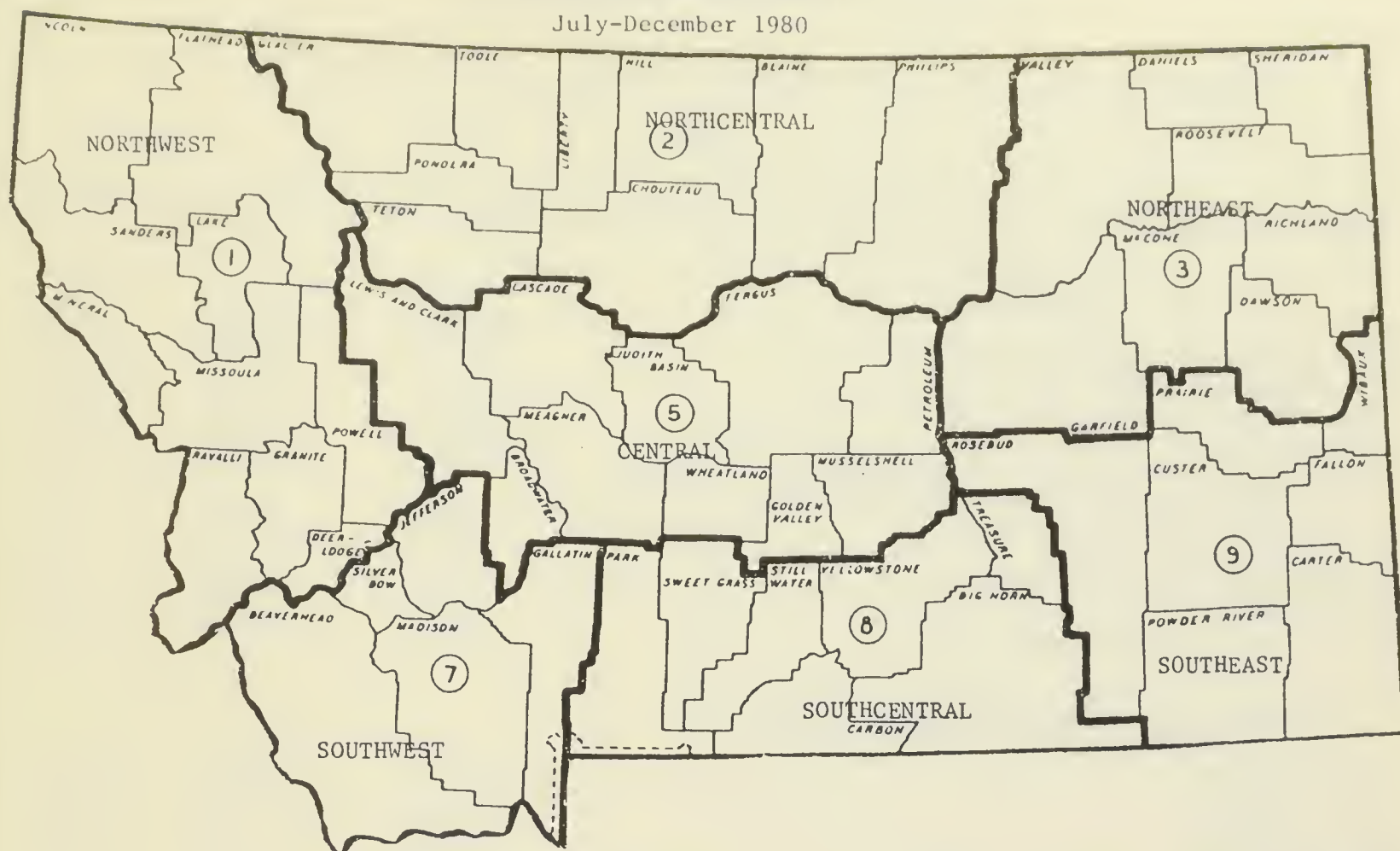


	<u>NORTH WEST</u>	<u>NORTH CENTRAL</u>	<u>NORTH EAST</u>	<u>CENTRAL</u>	<u>SOUTH WEST</u>	<u>SOUTH CENTRAL</u>	<u>SOUTH EAST</u>	<u>OUT OF STATE</u>
Ammonium Nitrate	3,373	5,061	3,192	7,739	4,763	8,811	2,068	4,482
Urea	545	4,536	1,299	3,740	1,696	2,459	260	883
Other Nigrogen Sources	861	2,538	1,703	11,335	1,634	2,610	379	1,374
P ₂ O ₅ Sources	207	669	509	449	501	638	430	445
Potash	987	1,975	465	1,343	503	764	738	781
18-46-0	874	7,605	7,113	4,377	1,643	4,133	3,111	3,022
11-48-0	0	268	365	180	6	0	0	9
11-55-0	359	4,593	1,514	5,263	1,223	980	398	1,991
16-20-0	3,988	1,390	28	1,496	1,874	1,353	52	460
2-1-0-	1,299	0	0	243	654	146	0	148
1-1-0	1	72	66	297	4	147	0	62
1-1-1	949	0	0	0	6	44	0	72
Micellaneous	1,433	1,095	106	1,277	267	1,172	5	916
Miscellaneous Liquid	134	1,455	993	1,526	414	115	0	564
Gypsum, Lime, & Sulphur	186	334	531	231	42	927	49	2,171
TOTAL TONS	<u>15,196</u>	<u>31,591</u>	<u>17,884</u>	<u>39,501</u>	<u>15,230</u>	<u>24,299</u>	<u>7,490</u>	<u>17,380</u>

FERTILIZER AND FERTILIZER MATERIAL SOLD IN MONTANA

By Crop Reporting Districts

July-December 1980



	NORTH WEST	NORTH CENTRAL	NORTH EAST	CENTRAL	SOUTH WEST	SOUTH CENTRAL	SOUTH EAST	OUT OF STATE
Ammonium Nitrate	484	4311	1321	6834	2582	4858	467	135
Urea	48	2217	820	2174	759	1044	154	10
Other Nitrogen	268	7827	1442	3371	1122	3709	64	561
Sources								
P ₂ O ₅ Sources	52	1500	457	161	218	531	281	0
Potash	326	2259	570	1397	305	480	261	131
18-46-0	225	7662	4194	5697	1144	6220	2814	51
11-48-0	0	490	65	0	0	0	0	0
11-55-0	611	8854	2050	5918	1472	1470	428	378
16-20-0	727	1051	0	649	1292	1344	98	258
2-1-0-	299	58	0	91	82	11	0	0
1-1-0	15	135	1	83	20	9	0	0
1-1-1	92	0	0	6	4	10	0	0
Micellaneous	1006	365	69	410	22	542	3	564
Miscellaneous Liquid	178	3462	507	881	2	757	0	195
Gypsum, Lime, & Sulphur	68	61	208	187	106	826	8	633
TOTAL TONS	4,399	40,252	11,704	27,859	9,130	21,811	4,578	2,916

MONTANA DEPARTMENT OF AGRICULTURE

SUMMARY OF FERTILIZER AND FERTILIZER MATERIAL SOLD IN MONTANA

1980

<u>MATERIALS</u>		Jan-Jun (tons)	July-Dec.	Total
1.	Anhydrous Ammonia (82-0-0)	4,162	9,694	13,856
2.	Ammonium Nitrate	40,489	20,193	60,682
3.	Ammonium Sulfate (21-0-0)	13,274	2,585	15,859
4.	Urea	15,418	7,229	22,647
5.	Nitrogen Solutions (Aqua Ammonia, Urea Solutions and Urea, Ammonia Nitrate Solutions)	4,990	6,007	10,997
6.	0-45-0, 0-44-0	3,848	3,204	7,052
7.	Phosphoric Acid	589	205	794
8.	Gypsum, Lime and Sulphur	1,127	844	1,971
9.	Potash	7,552	5,729	13,281
10.	Micro Nutrient Materials	3,336	1,260	4,596
 <u>AMMONIATED PHOSPHATES AND MIXTURES</u>				
11.	18-46-0	31,878	28,007	59,885
12.	16-20-0	10,641	5,411	16,052
13.	11-48-0	828	555	1,383
14.	11-55-0	16,241	21,181	37,422
15.	30-10-0	1,295	576	1,871
16.	27-14-0	1,973	69	2,042
17.	27-12-0, 29-14-0, 28-14-0	2,490	541	3,031
18.	1-1-0 ratios such as 23-23-0	649	263	912
19.	1-1-1 ratios such as 16-16-16	1,078	112	1,190
20.	Miscellaneous farm grades	5,262	2,717	7,979
21.	Miscellaneous specialty grades	1,009	264	1,273
22.	Liquid Mixtures	5,201	5,982	11,183
TOTAL, All Fertilizers and Materials		173,330	122,628	295,958
TOTAL NITROGEN		37,740.4	29,004	66,744.4
TOTAL P ₂ O ₅		29,135.2	27,326	56,461.2
TOTAL K ₂ O		4,692.9	3,455	8,147.9

MONTANA DEPARTMENT OF AGRICULTURE
PLANT INDUSTRY DIVISION
AGRICULTURE/LIVESTOCK BLDG.
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